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Draft: November 12, 2020

GROUND WATER QUALITY BUREAU
DISCHARGE PERMIT
Issued under 20.6.2 NMAC

Facility Name:	Xcel Energy Cunningham Station
Discharge Permit Number:	DP-1429
Facility Location:	986 State Highway 483 Hobbs, NM
County:	Lea
Permittee:	Southwestern Public Service Company
Mailing Address:	790 S Buchanan St Amarillo, TX 79101
Facility Contact:	Jeff Bryant, Plant Director
Telephone Number/Email:	(575) 391-3701/jeff.bryant@xcelenergy.com
Permitting Action:	Renewal
Permit Issuance Date:	DATE
Permit Expiration Date:	DATE
NMED Permit Contact:	Avery Young
Telephone Number/Email:	(505) 699-8564/avery.young@state.nm.us

MICHELLE HUNTER
Chief, Ground Water Quality Bureau
New Mexico Environment Department

Date

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ATTACHMENTS

I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this groundwater discharge permit Renewal (Discharge Permit or DP-1429) to the Southwestern Public Service Company (Permittee), a subsidiary of Xcel Energy, pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Ground and Surface Water Protection Regulations, 20.6.2 NMAC.

NMED's purpose in issuing this Discharge Permit, and in imposing the requirements and conditions specified herein, is to control the discharge of water contaminants from Xcel Energy Cunningham Station (Facility) in order to protect groundwater and those segments of surface water gaining from groundwater inflow for present and potential future use as domestic and agricultural water supply and other uses, and to protect public health. It is NMED's determination in issuing this Discharge Permit that the Permittee has met the requirements of Subsection C of 20.6.2.3109 NMAC. The Permittee is responsible for complying with the terms and conditions of this Discharge Permit pursuant to Section 20.6.2.3104 NMAC; failure to do so may result in enforcement action by NMED (20.6.2.1220 NMAC).

Described below are the activities that produce the discharge, the location of the discharge, and the quantity, quality and flow characteristics.

The Permittee manages industrial wastewater consisting of reverse osmosis (RO) concentrate, non-contact cooling water, and boiler cleaning solutions at a volume up to 3.5 million gallons per day (MGD) to a synthetically lined impoundment for storage. Wastewater from the impoundment land applies through a stationary sprinkler system to 84 acres of pecans and through two center-pivot sprinkler systems to a minimum of 256 and a maximum of 302 acres of cropland under cultivation or native vegetation.

The discharge may contain water contaminants or toxic pollutants elevated above the standards of Section 20.6.2.3103 NMAC and is not subject to the exemption at Subsection 20.6.2.3105.A NMAC. Data collected from on-site monitoring wells document groundwater contamination attributed to one or more sources at this Facility. The on-site monitoring wells have exceedances of groundwater quality standards for total dissolved solids and sulfate according to the criteria of Sections 20.6.2.3101 and 20.6.2.3103 NMAC. This Discharge Permit contains requirements, actions, and/or contingencies intended to address the sources of documented groundwater contamination.

The Facility is located at 986 State Highway 483, approximately 12 miles west of Hobbs, in Sections 16,21, and 28, Township 18S, Range 36E, Lea County. A discharge at the Facility is most likely to affect groundwater at a depth of approximately 65 feet and having a total dissolved solids (TDS) concentration of approximately 350 milligrams per liter.

NMED issued the original Discharge Permit to the Permittee on September 10, 2003 and subsequently modified the Permit on June 11, 2007, renewed the Permit on October 5, 2009, amended the Permit on December 8, 2009 and March 8, 2013, and renewed the Permit on January 15, 2015. The application (i.e., discharge plan) associated with is Discharge Permit consists of the materials submitted by the Permittee dated July 15, 2019, and materials contained in the administrative record prior to issuance of this Discharge Permit. The Permittee shall manage the discharge in accordance with all conditions and requirements of this Discharge Permit.

This Discharge Permit requires an associated Closure Plan, the intent of which it is to prevent the exceedance of the groundwater protection standards of 20.6.2.3103 NMAC after the Facility, or a portion of the Facility, cease to operate. The Closure Plan shall include a detailed description of all closure and post-closure maintenance and inspection procedures. The Permittee's obligation to implement the Closure Plan and associated permit requirements survives the termination or expiration of this Discharge Permit. The Permittee may implement and complete portions of the Closure Plan prior to the cessation of the operation of the Facility.

This Discharge Permit requires financial assurance requirements associated with closure of the structures associated with the Permit, including a requirement to produce a closure cost estimate intended to sufficiently identify the cost of implementing all aspects of closure as described in the Closure Plan. This Discharge Permit requires establishment of a financial assurance instrument intended to cover all closure costs as identified in the closure cost estimate. This Discharge Permit requires the maintenance of financial assurance during the term of this Discharge Permit and until successful accomplishment of all closure activities.

NMED reserves the right to require a Discharge Permit modification in the event NMED determines that the Permittee is or may be violating, or is likely to violate in the future, the requirements of 20.6.2 NMAC or the standards of Section 20.6.2.3103 NMAC. NMED reserves this right pursuant to Section 20.6.2.3109 NMAC. An NMED requirement to modify the Discharge Permit may result from a determination by NMED that structural controls and/or management practices approved under this Discharge Permit are insufficiently protective of groundwater quality and human health. NMED reserves the right to require the Permittee implement abatement of water pollution and remediate groundwater quality.

The Permittee shall manage the discharges in accordance with all conditions and requirements of this Discharge Permit. NMED's issuance of this Discharge Permit does not relieve the Permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

This Discharge Permit may use the following acronyms and abbreviations.

Abbreviation	Explanation		Abbreviation	Explanation
BOD_5	biochemical oxygen demand (5-day)		NMSA	New Mexico Statutes Annotated
CFR	Code of Federal Regulations		NO_3-N	nitrate-nitrogen
CFU	colony forming unit		NTU	nephelometric turbidity units
Cl	chloride		QA/QC	Quality Assurance/Quality Control
EPA	United States Environmental Protection Agency		TDS	total dissolved solids
gpd	gallons per day		TKN	total Kjeldahl nitrogen
LAA	land application area		total nitrogen	= TKN + NO_3-N
LADS	Land Application Data Sheet(s)		TRC	total residual chlorine
mg/L	milligrams per liter		TSS	total suspended solids
mL	milliliters		WQA	New Mexico Water Quality Act
MPN	most probable number		WQCC	Water Quality Control Commission
NMAC	New Mexico Administrative Code		WWTF	Wastewater Treatment Facility
NMED	New Mexico Environment Department			

II. FINDINGS

In issuing this Discharge Permit, NMED finds the following.

1. The Permittee is discharging effluent or leachate from the Facility so that such effluent or leachate may move into groundwater of the State of New Mexico that has an existing concentration of 10,000 mg/L or less of TDS, within the meaning of Subsection A of 20.6.2.3101 NMAC, without exceeding standards of 20.6.2.3103 NMAC for any water contaminant.

2. The Discharge Permit allows the Permittee to discharge effluent or leachate from the Facility directly or indirectly into groundwater pursuant to this Discharge Permit and Sections 20.6.2.3000 through 20.6.2.3114 NMAC.

3. The discharge from the Facility is not subject to any of the exemptions of Section 20.6.2.3105 NMAC.

III. AUTHORIZATION TO DISCHARGE

The Permittee is responsible for ensuring that discharges authorized by this Discharge Permit are consistent with the terms and conditions herein pursuant to 20.6.2.3104 NMAC.

This Discharge Permit authorizes the Permittee to discharge up to 3.5 MGD of industrial wastewater to a synthetically lined impoundment for storage. Wastewater from the impoundment is land applied through a stationary sprinkler system to 84 acres of pecans and through two center-pivot sprinkler systems to a minimum of 256 and a maximum of 302 acres of cropland under cultivation or native vegetation.

[20.6.2.3104 NMAC, Subsection C of 20.6.2.3106 NMAC, Subsection D of 20.6.2.3109 NMAC]

IV. CONDITIONS

NMED issues this Discharge Permit for the discharge of water contaminants subject to the following conditions.

A. OPERATIONAL PLAN

#	Terms and Conditions
1.	The Permittee shall implement the following operational plan to ensure compliance with Title 20, Chapter 6, Parts 2 and 4 NMAC. [Subsection C of 20.6.2.3109 NMAC]
2.	The Permittee shall operate in a manner that does not violate standards and requirements of Sections 20.6.2.3101 and 20.6.2.3103 NMAC. [20.6.2.3101 NMAC, 20.6.2.3103 NMAC, Subsection C of 20.6.2.3109 NMAC]

Operational Actions with Implementation Deadlines

#	Terms and Conditions
3.	Within 60 days following the issuance date of this Discharge Permit (**by DATE**), the Permittee shall measure the thickness of the settled solids in the Blowdown Water Storage Pond. The Permittee shall report the results of the solids thickness measurements to NMED in the next required periodic monitoring report. The Permittee shall measure the thickness of settled solids in accordance with the following procedure. a) The division of the total surface area of the treatment impoundment into nine equal sub-areas. b) One measurement (to the nearest half foot) using a settled solids measurement device (e.g., core sampler) per sub-area.

#	Terms and Conditions
	c) Calculation of the average of the nine measurements. In the event that the measured settled solids exceed one-third of the maximum liquid depth in the impoundment, the Permittee shall implement the Contingency Plan set forth in this Discharge Permit. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]

Operating Conditions

#	Terms and Conditions
4.	The Permittee shall apply reclaimed domestic wastewater evenly to cropland under cultivation (the re-use area) such that the amount of total nitrogen in the combined application of wastewater and fertilizer does not exceed by more than 25% the amount reasonably expected to be taken up by the crop(s) and removed by harvesting in any rolling 12-month period. The Permittee shall not adjust Nitrogen content to account for volatilization or mineralization processes. A requirement to track nitrogen loading utilizing a Land Application Data Sheet is included elsewhere in this Discharge Permit. The Permittee shall prevent excessive ponding from occurring in due to the discharge. [Subsection C of 20.6.2.3109 NMAC]
5.	The Permittee shall ensure adherence to the following general requirements for above-ground use of reclaimed domestic wastewater. a) The Permittee shall install and maintain signs in English and Spanish at all re-use areas such that they are visible and legible for the term of this Discharge Permit. The Permittee shall post signs at the entrance to re-use areas and at other locations where public exposure to reclaimed domestic wastewater may occur. The signs shall state: **NOTICE: THIS AREA IS IRRIGATED WITH RECLAIMED WASTEWATER - DO NOT DRINK. AVISO: ESTA ÁREA ESTÁ REGADA CON AGUAS NEGRAS RECOBRADAS - NO TOMAR.** The Permittee may submit alternate wording and/or graphics to NMED for approval. b) Reclaimed wastewater systems shall have no direct or indirect cross connections with public water systems or irrigation wells pursuant to the latest revision of the New Mexico Plumbing Code (14.8.2 NMAC) and New Mexico Mechanical Code (14.9.2 NMAC). c) Above-ground use of reclaimed wastewater shall not result in excessive ponding of wastewater and shall not exceed the water consumptive needs of the crop. The

#	Terms and Conditions
	Permittee shall not discharge reclaimed wastewater at times when the re-use area is saturated or frozen. d) The Permittee shall confine the discharge of reclaimed wastewater to the re-use area. e) The Permittee shall not discharge reclaimed wastewater to crops used for human consumption. f) Water supply wells within 200 feet of a re-use area shall have adequate wellhead construction pursuant to 19.27.4 NMAC. The Permittee shall demonstrate adherence to these requirements by submitting documentation consisting of narrative statements and date-stamped photographs as appropriate. The Permittee shall submit the documentation to NMED once during the term of this Discharge Permit in the next required periodic monitoring report after the issuance of the Discharge Permit. [Subsections B and C of 20.6.2.3109 NMAC, NMSA 1–78, § 74-6–5.D]
6.	The Permittee shall institute a backflow prevention method to protect wells and public water supply systems from contamination by reclaimed domestic wastewater prior to discharging to the re-use area. Backflow prevention shall be achieved by a total disconnect (physical air gap separation between the discharge pipe and the liquid surface at least twice the diameter of the discharge pipe), or by a reduced pressure principal backflow prevention assembly (RP) installed on the line between the fresh water supply wells or public water supply and the reclaimed domestic wastewater delivery system. The Permittee shall maintain backflow prevention at all times. The Permittee shall have RP devices inspected and tested by a certified backflow prevention assembly tester at the time of installation, repair or relocation and at least on an annual basis thereafter. The backflow prevention assembly tester shall have successfully completed a 40-hour backflow prevention course based on the University of Southern California's Backflow Prevention Standards and Test Procedures, and obtained certification demonstrating completion. The Permittee shall have all malfunctioning RP devices repaired or replaced within 30 days of discovery. The Permittee shall ensure the supply lines associated with the RP device are not utilized until repair or replacement of a malfunctioning RP device has been completed. The Permittee shall maintain copies of inspection and maintenance records and test results for each RP device associated with the backflow prevention program. The documents shall identify the date of the action, the name of the person responsible for the action, any findings, and shall be maintained at a location available for inspection by NMED.

#	Terms and Conditions
	[Subsection C of 20.6.2.3109 NMAC]
7.	The Permittee shall maintain fences around the Blowdown Water Storage Pond to restrict access by the general public and animals. The fences shall consist of a minimum of six-foot chain link or field fencing and locking gates. The Permittee shall maintain the fences to serve the stated purpose throughout the term of this Discharge Permit. [Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]
8.	The Permittee shall maintain signs indicating that the wastewater at the Facility is not potable. The Permittee shall post signs at the Facility entrance and other areas where there is potential for public contact with wastewater. The signs shall be printed in English and Spanish and shall remain visible and legible for the term of this Discharge Permit. [Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]
9.	The Permittee shall maintain the impoundment liner to avoid conditions that could affect the liner or the structural integrity of the impoundment. Characterization of such conditions may include the following: • erosion damage; • animal burrows or other damage; • the presence of vegetation including aquatic plants, weeds, woody shrubs or trees growing within five feet of the top inside edge of a sub-grade impoundment, within five feet of the toe of the outside berm of an above-grade impoundment, or within the impoundment itself; • the presence of large debris or large quantities of debris in the impoundment; • evidence of seepage; or • evidence of berm subsidence. The Permittee shall routinely control vegetation growing around the impoundment by mechanical removal that is protective of the impoundment liner. The Permittee shall visually inspect the impoundment and surrounding berms on a monthly basis to ensure proper maintenance. In the event that inspection reveals any evidence of damage that threatens the structural integrity of an impoundment berm or liner, or that may result in an unauthorized discharge, the Permittee shall implement the Contingency Plan set forth in this Discharge Permit. The Permittee shall create and maintain a log of all impoundment inspections which describes, the date of the inspection, any findings and repairs, and the name of the

<table>
<tr><th>#</th><th>Terms and Conditions</th></tr>
<tr><td></td><td>person responsible for the inspection. The Permittee shall make the log available to NMED upon request.

[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</td></tr>
<tr><td>10.</td><td>The Permittee shall preserve a minimum of two feet of freeboard, i.e., the liquid level in the impoundment and the elevation of the lowest-most top of the impoundment liner.

In the event that the Permittee determines that it cannot preserve two feet of freeboard in the impoundment, the Permittee shall implement the Contingency Plan set forth in this Discharge Permit.

[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</td></tr>
<tr><td>11.</td><td>The Permittee shall only add the following chemicals to the cooling-tower water: sulfuric acid, chlorine, and calcium hypochlorite. If the Permittee is to use any chemicals or additives beside those listed, The Permittee shall notify NMED and receive NMED's approval.

[20.6.2.3107 NMAC]</td></tr>
<tr><td>12.</td><td>The Permittee shall limit boiler cleaning operation chemicals to the following chemicals in the quantities listed. The use of other chemicals, or greater quantities of approved chemicals, shall require advance approval by NMED.

Maximum Expected Chemical Use per Boiler Cleaning Event
<table><tr><td>Ammonium Bifluoride</td><td>700 lbs.</td></tr><tr><td>Anhydrous Ammonia</td><td>8000 lbs.</td></tr><tr><td>Ammonium Bicarbonate</td><td>1000 lbs.</td></tr><tr><td>50% Citric Acid</td><td>2000 gal.</td></tr><tr><td>Rodine 31A</td><td>25 gal.</td></tr><tr><td>Sodium Nitrate</td><td>1800 lbs.</td></tr><tr><td>Soda Ash</td><td>1200 lbs.</td></tr><tr><td>Sodium Bromate</td><td>1000 lbs.</td></tr></table>
[20.6.2.3109 NMAC]</td></tr>
<tr><td>13.</td><td>The Permittee shall not irrigate the orchard and cropland in excess of the annual evapotranspiration requirement for the calendar year as calculated using the CROPWAT computer model. The Permittee shall not exceed the cumulative monthly evapotranspiration requirement for the calendar year by more than three acre-inches/acre at any time during the year and must meet the annual evapotranspiration</td></tr>
</table>

#	Terms and Conditions
	limit by the end of the calendar year. The Permittee shall submit a comparison of actual monthly rainfall amounts plus actual monthly irrigation amounts with the CROPWAT calculated reference crop evapotranspiration amounts to NMED in the semi-annual monitoring reports. [20.6.2.3109 NMAC]

B. MONITORING AND REPORTING

#	Terms and Conditions
14.	The Permittee shall conduct the monitoring, reporting, and other requirements listed below in accordance with the monitoring requirements of this Discharge Permit. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
15.	METHODOLOGY – Unless otherwise specified by this Discharge Permit, or approved in writing by NMED, the Permittee shall use sampling and analytical techniques that conform with the references listed in Subsection B of 20.6.2.3107 NMAC. [Subsection B of 20.6.2.3107 NMAC]
16.	Semi-annual monitoring - The Permittee shall perform monitoring and other Permit required actions during the following periods and shall submit semi-annual reports to NMED by the following due dates: • January 1st through June 30th – **due by August 1st; and** • July 1st through December 31st – **due by February 1st.** [Subsection A of 20.6.2.3107 NMAC]

Monitoring Actions with Implementation Deadlines

#	Terms and Conditions
17.	Within 60 days following the issuance date of this Discharge Permit (**by DATE**), the Permittee shall submit a written groundwater monitoring well location proposal for NMED review and approval. The proposal shall designate the installation locations of the monitoring well required by Condition 18 of this Discharge Permit. The proposal shall include, at a minimum, the following information. a) A map showing the proposed location of the monitoring well in relation to the boundary of the source it intends to monitor.

#	Terms and Conditions
	b) A written description of the specific location proposed for the monitoring well including the distance (in feet) and direction of the monitoring well from the edge of the source it intends to monitor. Examples include: 35 feet north-northwest of the northern berm of the synthetically lined impoundment; 45 feet due south of the leachfield; and 30 feet southeast of the re-use area 150 degrees from north. c) A statement describing the groundwater flow direction beneath the Facility, and documentation and/or data supporting the determination. The Permittee must obtain NMED's approval of all groundwater monitoring well locations prior to their installation. [Subsection A of 20.6.2.3107 NMAC]
18.	Within 120 days of the issuance date of this Discharge Permit (**by DATE**), the Permittee shall install the following new groundwater monitoring well. • One monitoring well (CU-5R) hydrologically downgradient of the pecan orchard and Center Pivot #1 and screened deeper than CU-3 (screen at 130-140 feet). The Permittee shall complete the well in accordance with the attachment titled Monitoring Well Guidance. Unless otherwise noted in this Discharge Permit, the requirement to install a monitoring well downgradient of a source is <u>not</u> contingent upon construction of the Facility, or discharge of wastewater from the Facility. [Subsection A of 20.6.2.3107 NMAC]
19.	Within 150 days following the issuance date of this Discharge Permit (**by DATE**), the Permittee shall perform a geographical survey of the new groundwater monitoring well approved by NMED for Discharge Permit monitoring purposes. The survey shall be tied or referenced to a U.S. Geological Survey (USGS) or other permanent benchmark. Survey data shall include northing, easting and elevation to the nearest hundredth of a foot or shall be in accordance with the "Minimum Standards for Surveying in New Mexico" (12.8.2 NMAC). The Permittee shall utilize the survey to establish an elevation at the top-of-casing, with a permanent marking indicating the point of elevation. The survey shall bear the seal and signature of a licensed New Mexico professional surveyor (pursuant to the New Mexico Engineering and Surveying Practice Act and the rules promulgated under that authority). The Permittee shall utilize the survey to establish an elevation at the top-of-casing, with a permanent marking indicating the point of elevation.

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	The Permittee shall measure the depth-to-most-shallow groundwater to the nearest hundredth of a foot in all surveyed wells and referenced to mean sea level, and the data shall be used to develop a groundwater elevation contour map showing the location of all monitoring wells and the direction and gradient of groundwater flow at the Facility. The Permittee shall submit the data and groundwater elevation contour map to NMED within 30 days of survey completion. [Subsection A of 20.6.2.3107 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]
20.	The Permittee shall sample wastewater discharged to the Blowdown Water Storage Pond for the presence of perfluorinated chemicals (PFCs). Within 180 days of the issuance date of this Discharge Permit (by **DATE**), the Permittee shall collect a single grab sample from the Blowdown Water Storage Pond in a location that is representative of the discharge contained therein. The Permittee shall analyze the sample for the following PFCs: • perfluorohexane sulfonic acid (PFHxS) (CAS 355-46-4) • perfluorooctane sulfonate (PFOS) (CAS 1763-23-1) • perfluorooctanoic acid (PFOA) (CAS 335-67-1) The Permittee shall properly collect, prepare, preserve, transport, and analyze the sample in accordance with ASTM D7979-17, or an equivalent method that uses liquid chromatography and tandem mass spectrometry (LC/MS/MS). The reporting limit shall be low enough to identify whether the combined concentration of the perfluorinated chemicals is less than the Tap Water Screening Level identified in the *NMED Risk Assessment Guidance for Site Assessments and Investigations*, Table A-1 available on the NMED Hazardous Waste Bureau's website under Guidance Documents. The Permittee shall take appropriate measures to avoid cross contamination while collecting and transporting the sample. The selected laboratory should be able to provide guidance that ensures sample integrity. The Permittee shall submit a copy of the laboratory report, including analytical results, the QA/QC summary, and the Chain of Custody to NMED within 30 days of laboratory report receipt. [Subsection H of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]

Groundwater Monitoring Conditions

#	Terms and Conditions
21.	The Permittee shall perform semi-annual groundwater sampling in the following groundwater monitoring wells and analyze the samples for NO_3-N, TDS, Cl, fluoride (F), and sulfate (SO_4). a) CU-1, located hydrologically upgradient of the Facility and 40 feet northeast of the pecan orchard. b) CU-2, located hydrologically downgradient of Squires Lake and approximately 130 feet southeast of Squires Lake. c) CU-3, located hydrologically downgradient of the pecan orchard and Center Pivot #1 land application areas and approximately 300 feet west of Center Pivot #1. d) CU-4, located hydrologically downgradient of the old cooling tower blowdown pond and approximately 100 feet southeast of the old cooling tower blowdown pond. e) CU-5R, located hydrologically downgradient of the pecan orchard and Pivot #1 and screened deeper than CU-3 (screen at 130-140 feet). f) CU-6, located to characterize the extent of the contamination plume and approximately 0.2 miles northeast of CU-3. g) CU-7, located to characterize the extent of the contamination plume and approximately 0.4 miles west of the Blowdown Water Storage Pond. h) CU-8, located to characterize the extent of the contamination plume and approximately 0.2 miles northeast of the Blowdown Water Storage Pond. i) CU-9, located to characterize the extent of the contamination plume and approximately 400 feet east of the entrance to the Facility. j) CU-10, located to characterize the extent of the contamination plume and approximately 500 feet south of the entrance to the Facility. k) CU-11, located to characterize the extent of the contamination plume and approximately 0.8 miles southeast of the entrance to the Facility. l) CU-12, located hydrologically downgradient of Center Pivot #2 land application area and approximately 150 feet southeast of Center Pivot #2. The Permittee shall perform groundwater sample collection, preservation, transport and analysis according to the following procedures. a) Measure the depth-to-most-shallow groundwater from the top of the well casing to the nearest hundredth of a foot. b) Purge three well volumes of water from the well prior to sample collection. c) Obtain samples from the well for analysis. d) Properly prepare, preserve and transport samples. e) Analyze samples in accordance with the methods authorized in this Discharge Permit.

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	The Permittee shall submit the depth-to-most-shallow groundwater measurements, laboratory analytical data results, including the QA/QC summary report and Chain of Custody, and a Facility layout map showing the location and number of each well to NMED in the semi-annual monitoring reports. [Subsection A of 20.6.2.3107 NMAC]
22.	In addition to, and as part of one of the groundwater sampling events as required by Condition 21 of this permit, the Permittee shall perform two groundwater sampling events (one in 2022 and one in 2024) in four groundwater monitoring wells and analyze the samples for all organic and inorganic constituents listed below in Conditions 30 and 31. The Permittee shall sample the following wells: a) CU-1, intended to be hydrologically upgradient of the Facility and located 40 feet northeast of the pecan orchard. b) CU-3, intended to be hydrologically downgradient of the pecan orchard and Center Pivot #1 land application areas and located approximately 300 feet west of Center Pivot #1. c) CU-5R, intended to be hydrologically downgradient of the pecan orchard and Pivot #1 and screened deeper than CU-3 (screen at 130-140 feet). d) CU-12, intended to be hydrologically downgradient of Center Pivot #2 land application area and located approximately 150 feet southeast of Center Pivot #2. The Permittee shall perform groundwater sample collection, preservation, transport and analysis according to the following procedures. f) Measure the depth-to-most-shallow groundwater from the top of the well casing to the nearest hundredth of a foot. g) Purge three well volumes of water from the well prior to sample collection. h) Obtain samples from the well for analysis. i) Properly prepare, preserve and transport samples. j) Analyze samples in accordance with the methods authorized in this Discharge Permit. The Permittee shall submit the depth-to-most-shallow groundwater measurements, laboratory analytical data results, including the QA/QC summary report and Chain of Custody, and a Facility layout map showing the location and number of each well to NMED in the semi-annual monitoring report due by August 1st of 2022 and 2024. [Subsection A of 20.6.2.3107 NMAC]
23.	The Permittee shall develop a groundwater elevation contour map, i.e., potentiometric surface map, on a semi-annual basis using the top of casing elevation data from the

#	Terms and Conditions
	monitoring well survey and semi-annual the most recent depth-to-most-shallow groundwater measurements, referenced to mean sea level, obtained during the groundwater sampling required by this Discharge Permit. The groundwater elevation contour map shall depict the groundwater flow direction based on the groundwater elevation contours. The Permittee shall estimate groundwater elevations between monitoring well locations using common interpolation methods. The Permittee shall use a contour interval appropriate to the data, but shall not be greater than two feet. Groundwater elevation contour maps shall use arrows to depict the groundwater flow direction based on the orientation of the groundwater elevation contours and shall locate and identify each monitoring well and contaminant source. The Permittee shall submit to NMED a groundwater elevation contour map in the semi-annual monitoring reports. [Subsection A of 20.6.2.3107 NMAC]
24.	NMED shall have the option to perform downhole inspections of all groundwater monitoring wells identified in this Discharge Permit. NMED shall establish the inspection date and provide at least a 60-day notice to the Permittee by certified mail. The Permittee shall remove any existing dedicated pumps at least 48 hours prior to NMED inspection to allow adequate settling time of sediment agitated from pump removal. Should the Permittee decide to install a pump monitoring well without a dedicated pump, the Permittee shall notify NMED at least 90 days prior to pump installation so that NMED can schedule a downhole well inspection(s) prior to pump placement. [Subsections A and D of 20.6.2.3107 NMAC]

Facility Monitoring Conditions

#	Terms and Conditions
25.	The Permittee shall on a monthly basis measure the volume discharged to *each* orchard and field within the re-use area using totalizing flow meters. The meters shall be located in the following locations: 1. on the transfer line from the Blowdown Water Storage Pond to Field #1; 2. at Center Pivot #1; and 3. at Center Pivot #2.

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	The Permittee shall maintain a log that records the date that discharges occur to *each* location and the monthly totalizing meter readings and units of measurement. The Permittee shall use the log to calculate the total monthly volume of wastewater discharged to *each* location. The Permittee shall also use the monthly volume discharged to *each* location on the LADS (copy enclosed) to calculate nitrogen loading. The Permittee shall submit a copy of the log to NMED in the semi-annual monitoring reports. [Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]
26.	The Permittee shall on a monthly basis measure the volume of wastewater discharged to the Blowdown Water Storage Pond during the period. To determine the discharge volume, the Permittee shall obtain readings from a totalizing flow meter located on the pipeline to the Blowdown Water Storage Pond on a monthly basis and calculate the monthly and average daily volume discharged to the impoundment. The Permittee shall submit monthly meter readings, calculated monthly discharge volumes and average daily discharge volumes to NMED in the semi-annual monitoring reports. [Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]
27.	All flow meters shall be capable of having their accuracy verified under working (i.e., real-time in-the-field) conditions. The Permittee shall develop a field verification method for each flow meter and shall utilize that method to check the accuracy of each respective meter. The Permittee shall perform field calibrations upon repair or replacement of a flow measurement device and, at a minimum, within 90 days of the issuance date of this Discharge Permit (**by DATE**), and then every other year thereafter. The Permittee shall ensure each flow meter is calibrated to its manufacturer's recommended specification which shall be no less accurate than plus or minus 10 percent of actual flow, as measured under field conditions. An individual knowledgeable in flow measurement shall perform field calibration and the installation/operation of the device in use. The Permittee shall prepare a flow meter calibration report for each flow measurement device calibration event. The flow meter calibration report shall include the following information. a) The location and meter identification. b) The method of flow meter field calibration employed. c) The measured accuracy of each flow meter prior to adjustment indicating the positive or negative offset as a percentage of actual flow as determined by an in-field calibration check.

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	d) The measured accuracy of each flow meter following adjustment, if necessary, indicating the positive or negative offset as a percentage of actual flow of the meter. e) Any flow meter repairs made during the previous year or during field calibration. f) The name of the individual performing the calibration and the date of the calibration. The Permittee shall maintain records of flow meter calibration(s) at a location accessible for review by NMED during Facility inspections. [Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]
28.	The Permittee shall visually inspect flow meters on a monthly basis for evidence of malfunction. The Permittee shall maintain a log of the inspections that includes a date of the inspection, findings and repairs, and the name of the inspector. The Permittee shall make the log available to NMED upon request. If a visual inspection indicates a flow meter is not functioning as required by this Discharge Permit, the Permittee shall repair or replace the meter within 30 days of discovery. For *repaired* meters, the Permittee shall submit a report to NMED with the next monitoring report following the repair that includes a description of the malfunction; a statement verifying the repair; and a flow meter field calibration report completed in accordance with the requirements of this Discharge Permit. For *replacement* meters, the Permittee shall submit a report to NMED with the next monitoring report following the replacement that includes a design schematic for the device and a flow meter field calibration report completed in accordance with the requirements of this Discharge Permit. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
29.	The Permittee shall collect a composite wastewater sample on a semi-annual basis (once every six months) from the Blowdown Water Storage Impoundment. The composite sample shall consist of a minimum of six equal aliquots collected equidistantly around the entire perimeter of the evaporative impoundment and thoroughly mixed. The Permittee shall analyze the composite sample for: • NO_3-N; • TDS; • Cl; • F; and • SO_4. The Permittee shall properly prepare, preserve, transport and analyze the samples in accordance with the methods authorized in this Discharge Permit. The Permittee shall

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	submit the laboratory analytical data results, including the QA/QC summary and Chain of Custody, to NMED in the semi-annual monitoring reports. [Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]
30.	Twice within the permit term (once in 2022 and once in 2024), the Permittee shall collect a composite wastewater sample (except as noted for pH). The composite sample shall consist of a minimum of six equal aliquots collected around the entire perimeter of the Blowdown Water Storage Impoundment and thoroughly mixed and analyze the sample for the following inorganic contaminants (dissolved fraction, except as noted): • aluminum (CAS 7429-90-5) • antimony (CAS 7440-36-0) • arsenic (CAS 7440-38-2) • barium (CAS 7440-39-3) • beryllium (CAS 7440-41-7) • boron (CAS 7440-42-8) • cadmium (CAS 7440-43-9) • chromium (CAS 7440-47-3) • cobalt (CAS 7440-48-4) • copper (CAS 7440-50-8) • cyanide (CAS 57-12-5) • fluoride (CAS 16984-48-8) • iron (CAS 7439-89-6) • lead (CAS 7439-92-1) • manganese (CAS 7439-96-5) • molybdenum (CAS 7439-98-7) • total mercury (nonfiltered) (CAS 7439-97-6) • pH (instantaneous) • nickel (CAS 7440-02-0) • selenium (CAS 7782-49-2) • silver (CAS 7440-224) • sulfate (CAS 14808-79-8) • thallium (CAS 7440-28-0) • uranium (CAS 7440-61-1) • zinc (CAS 7440-66-6) The Permittee shall properly collect, prepare, preserve, transport and analyze the samples in accordance with the methods authorized in this Discharge Permit. The Permittee shall analyze the sample using methods with reporting limits that are less than the corresponding numerical groundwater standards identified in 20.6.2.3103 NMAC. The Permittee shall submit a summary of measured concentrations compared with the corresponding groundwater standards, and a copy of the laboratory report including the laboratory analytical data results, the QA/QC summary, and the Chain of Custody to NMED in the monitoring reports due by August 1st of 2022 and 2024. [Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]
31.	Twice within the permit term (once in 2022 and once in 2024), the Permittee shall collect a composite wastewater sample. The composite sample shall consist of a minimum of six equal aliquots collected around the entire perimeter of the Blowdown Water Storage

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	Impoundment and thoroughly mixed and analyze the non-filtered sample for the following organic contaminants: • atrazine (CAS 1912-24-9) • benzene (CAS 71-43-2) • benzo-a-pyrene (CAS 50-32-8) • carbon tetrachloride (CAS 56-23-5) • chloroform (CAS 67-66-3) • 1,2-dichlorobenzene (CAS 95-50-1) • 1,4-dichlorobenzene (CAS 106-46-7) • 1,1-dichloroethane (CAS 75-34-3) • 1,2-dichloroethane (EDC, CAS 107-06-2) • 1,1-dichloroethene (1,1-DCE, CAS 75-35-4) • cis-1,2-dichloroethene (CAS 156-59-2) • trans-1,2-dichloroethene (CAS 156-60-5) • 1,2-dichloropropane (PDC, CAS 78-87-5) • ethylbenzene (CAS 100-41-4) • ethylene dibromide (EDB, CAS 106-93-4) • methylene chloride (CAS 75-09-2) • PAHs: total naphthalene (CAS 91-20-3) plus monomethylnaphthalenes • phenols • polychlorinated biphenyls (PCBs, CAS 1336-36-3) • pentachlorophenol (CAS 87-86-5) • toluene (CAS 108-88-3) • styrene (CAS 100-42-5) • 1,1,2,2-tetrachloroethane (CAS 79-34-5) • tetrachloroethene (PCE, CAS 127-18-4) • 1,2,4-trichlorobenzene (CAS 120-82-1) • 1,1,1-trichloroethane (1,1,1-TCA, CAS 71-55-6) • 1,1,2-trichloroethane (CAS 79-00-5) • trichloroethene (TCE, CAS 79-01-6) • vinyl chloride (CAS 75-01-4) • total xylenes (CAS 1330-20-7) The Permittee shall properly collect, prepare, preserve, transport and analyze the samples in accordance with the methods authorized in this Discharge Permit. The Permittee shall analyze samples using methods with reporting limits that are less than the corresponding numerical groundwater standards identified in 20.6.2.3103 NMAC. The Permittee shall submit a summary of measured concentrations compared with the corresponding groundwater standards, and a copy of the laboratory report including the laboratory analytical data results, the QA/QC summary, and the Chain of Custody to NMED in the monitoring reports due by August 1st of 2022 and 2024. [Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]

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32.	The Permittee shall complete LADS (copy enclosed) on a monthly basis that document the amount of nitrogen applied to *each* orchard and field during the most recent 12 months. The LADS shall reflect the total nitrogen concentration from the most recent wastewater analysis and the measured discharge volumes to location for each month. The Permittee shall also report on the LADS the amount of nitrogen (fertilizer, wastewater, etc.) applied, crops grown along with planting and harvest dates, crop yield (tons per acre) and nitrogen concentration of the harvested crop specific to the crops grown. The Permittee shall complete the LADS with the information above or include a statement that application of wastewater did not occur. The Permittee shall submit the LADS to NMED in the subsequent quarterly monitoring report. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
33.	The Permittee shall keep a Fertilizer Log (copy enclosed) of all additional nitrogenous fertilizer applied to field within the re-use area. The Log shall contain the date of fertilizer application, the type (organic or inorganic) and form (granular or liquid), nitrogen concentration (in percent), the amount of fertilizer applied (in pounds per acre), and the amount of nitrogen applied (in pounds per acre) for each location. The Permittee shall submit the log, or a statement that application of fertilizer did not occur, to NMED in the subsequent quarterly monitoring report. [Subsection A of 20.6.2.3107 NMAC]

C. CORRECTIVE ACTION PLAN REQUIRED

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34.	The Permittee's groundwater data and monitoring reports document that the groundwater at the Facility and the surrounding re-use areas indicates exceedances of TDS and SO_4. Within six months following the issuance date of this Discharge Permit (**by DATE**), the Permittee shall submit to NMED for approval a Corrective Action Plan (CAP) for the exceedances of TDS and SO_4 detected in monitoring wells CU-2, CU-3, CU-4, CU-5, CU-8, and CU-9. The CAP shall present a conceptual site groundwater model to include information on the expected fate and transport of contaminants detected in groundwater below the Facility. The CAP shall provide a list of all sources of contamination at the Facility. Sources that are no longer considered to be ongoing but represent the point of origination for contaminants transported to other locations shall be included. The

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	discussion of fate and transport shall address potential migration of each contaminant in groundwater and shall identify any and all potential points of withdrawal including those outside the Facility boundary. Diagrammatic representations of the conceptual site model shall appear in the Figures section of the document. The CAP shall propose source control measures and an implementation schedule. [Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]

D. CONTINGENCY PLAN

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35.	In the event that groundwater monitoring indicates that groundwater exceeds a standard identified in Section 20.6.2.3103 NMAC in a monitoring well with no previous exceedances of the chemical constituent at the date of issuance of this Discharge Permit, the Permittee shall collect a confirmatory sample from the monitoring well within 15 days of receipt of the initial sampling results to confirm the initial sampling results. Within 60 days of confirmation of groundwater contamination, the Permittee shall submit to NMED a Corrective Action Plan (CAP) that proposes, at a minimum, contaminant source control measures and an implementation schedule. The Permittee shall the CAP as approved by NMED. Once this groundwater exceedance response condition is invoked whether during the term of this Discharge Permit or after the term of this Discharge Permit and prior to the completion of the Discharge Permit closure plan requirements, this condition shall apply until the Permittee has fulfilled the requirements of this condition and groundwater monitoring confirms for a minimum of eight (8) consecutive quarterly samples that groundwater does not exceed the standards of Section 20.6.2.3103 NMAC. Violation of the groundwater standard beyond 180 days after the confirmation of groundwater contamination may cause NMED to require the Permittee to abate water pollution consistent with the requirements and provisions of Section 20.6.2.4101, Section 20.6.2.4103, Subsections C and E of 20.6.2.4106, Section 20.6.2.4107, Section 20.6.2.4108 and Section 20.6.2.4112 NMAC. [Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]
36.	In the event that information available to NMED indicates that a well is not constructed in a manner consistent with the attachment titled (Monitoring Well Guidance); contains

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	insufficient water to issuancely monitor groundwater quality; or is otherwise not completed in a manner that is protective of groundwater quality, the Permittee shall install a replacement well(s) within 120 days following notification from NMED. The Permittee shall survey the replacement monitoring well(s) within 30 days following well completion. The Permittee shall install replacement wells at locations approved by NMED prior to installation and shall complete replacement wells in accordance with the attachment Monitoring Well Guidance. The Permittee shall submit well construction and lithologic logs survey data and a groundwater elevation contour map to NMED within 60 days following well completion. The Permittee shall properly plug and abandon a monitoring well requiring replacement upon completion of the replacement monitoring well. The Permittee shall complete the well plugging and abandonment, and shall document the abandonment procedures, in accordance with the attachment Monitoring Well Guidance and all applicable local, state, and federal regulations. The Permittee shall submit a copy of the well abandonment documentation to NMED within 60 days following the replacement well completion. [Subsection A of 20.6.2.3107 NMAC]
37.	In the event that groundwater flow information obtained pursuant to this Discharge Permit indicates that a monitoring well is not appropriately located, e.g., hydrologically downgradient of the discharge location it is intended to monitor, the Permittee shall install a replacement well within 120 days following notification from NMED. The Permittee shall survey the replacement monitoring well within 30 days following well completion. In the event that groundwater flow information obtained pursuant to this Discharge Permit indicates that a monitoring well is not appropriately located, e.g., hydrologically downgradient of the discharge location it is intended to monitor, the Permittee shall install a replacement well within 120 days following notification from NMED. The Permittee shall survey the replacement monitoring well within 30 days following well completion. The Permittee shall install replacement wells at locations approved by NMED prior to installation and shall complete replacement wells in accordance with the attachment Monitoring Well Guidance. The Permittee shall submit construction and lithologic logs,

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	survey data and a groundwater elevation contour map within 60 days following well completion. [Subsection A of 20.6.2.3107 NMAC]
38.	In the event that the LADS (copy enclosed) show that the amount of nitrogen in wastewater and additional fertilizer applied in any 12-month period exceeds by more than 25% the amount reasonably expected to be taken up by the crop(s) and removed by harvesting, the Permittee shall propose the reduction of nitrogen loading to the re-use area by submitting a Corrective Action Plan (CAP) to NMED for approval. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions and shall submit the CAP to NMED within 90 days following the end of the monitoring period in which the exceedance occurred. The Permittee shall implement the CAP following approval by NMED. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
39.	In the event that an inspection reveals significant damage has occurred or is likely to affect the structural integrity of an impoundment or liner or their ability to contain contaminants, the Permittee shall propose the repair or replacement by submitting a Corrective Action Plan (CAP) to NMED for approval. The Permittee shall submit the CAP to NMED within 30 days after discovery of the damage or following notification from NMED that significant damage is evident. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions. The Permittee shall initiate implementation of the CAP following approval by NMED. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
40.	In the event that an impoundment cannot preserve a minimum of two feet of freeboard, the Permittee shall take actions to restore the required freeboard as authorized by this Discharge Permit and all applicable local, state, and federal regulations. In the event that two feet of freeboard cannot be restored within a period of 72 hours following discovery, the Permittee shall propose actions to restore two feet of freeboard by submitting a short-term Corrective Action Plan (CAP) to NMED for approval. Examples of short-term corrective actions include the pumping and hauling of excess wastewater from the impoundment or reducing the volume of wastewater discharged to the impoundment. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions. The Permittee shall submit the CAP within 15 days following the date the Permittee or the NMED discover the exceedance. The Permittee shall implement the CAP following NMED approval.

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	In the event that the short-term corrective actions fail to restore two feet of freeboard, the Permittee shall submit to NMED a proposal for permanent corrective actions in a long-term CAP. The Permittee shall submit the long-term CAP within 90 days following failure of the short-term CAP. Examples corrective actions include the installation of an additional storage impoundment or a significant and permanent reduction in the volume of wastewater discharged to the impoundment. The Permittee shall ensure the long-term CAP includes a schedule for completion of corrective actions. The Permittee shall implement the CAP following NMED approval. [Subsection A of 20.6.2.3107 NMAC]
41.	In the event the average solids accumulation exceeds one-third of the maximum liquid depth in the impoundments, the Permittee shall propose a plan for the removal and disposal of the solids. The Permittee shall submit the solids removal and disposal plan to NMED for approval within 120 days following the issuance date of this Discharge Permit (**by DATE**) and includes the following information. a) A method for removal of the solids to a depth of less than six inches throughout the treatment impoundment in a manner that is protective of the impoundment liner. b) A description of how the Permittee will contain, transport, and dispose of the solids in accordance with all local, state, and federal regulations, including 40 CFR Part 503. c) A schedule for completion of the solids removal and disposal project. The Permittee shall initiate implementation of the plan following approval by NMED. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
42.	In the event that a release occurs that is not authorized under this Discharge Permit (commonly known as a "spill"), the Permittee shall take measures to mitigate damage from the unauthorized discharge and initiate the notifications and corrective actions required in Section 20.6.2.1203 NMAC and summarized below. Within <u>24 hours</u> following discovery of the unauthorized discharge, the Permittee shall verbally notify NMED and provide the following information. a) The name, address, and telephone number of the person or persons in charge of the Facility, as well as of the owner and/or operator of the Facility. b) The name and address of the Facility. c) The date, time, location, and duration of the unauthorized discharge. d) The source and cause of unauthorized discharge. e) A description of the unauthorized discharge, including its estimated chemical composition. f) The estimated volume of the unauthorized discharge.

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	g) Any actions taken to mitigate immediate damage from the unauthorized discharge. Within one week following discovery of the unauthorized discharge, the Permittee shall submit written notification to NMED providing the information listed above and any pertinent updates. Within 15 days following discovery of the unauthorized discharge, the Permittee shall submit a Corrective Action Plan (CAP) to NMED describing any corrective actions previously taken and corrective actions to be taken relative to the unauthorized discharge. The CAP shall include the following information. a) A description of proposed actions to mitigate damage from the unauthorized discharge. b) A description of proposed actions to prevent future unauthorized discharges of this nature. c) A schedule for completion of proposed actions. In the event that the unauthorized discharge causes or may with reasonable probability cause water pollution in excess of the standards and requirements of Section 20.6.2.4103 NMAC, and the water pollution will not be abated within 180 days after notice is required to be given pursuant to Paragraph (1) of Subsection A of 20.6.2.1203 NMAC, NMED may require the Permittee to abate water pollution pursuant to Sections 20.6.2.4000 through 20.6.2.4115 NMAC. The Permittee shall not construe anything in this condition as relieving them of the obligation to comply with all requirements of Section 20.6.2.1203 NMAC. [20.6.2.1203 NMAC]
43.	In the event that NMED or the Permittee identifies any failures of the discharge plan, i.e., the application, or this Discharge Permit not specifically noted herein, NMED may require the Permittee to submit a Corrective Action Plan and a schedule for completion of corrective actions to address the failure(s). Additionally, NMED may require a discharge permit modification to achieve compliance with 20.6.2 NMAC. [Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]

E. CLOSURE PLAN

Closure Actions with Implementation Deadlines

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44.	Within 120 days following the issuance date of this Discharge Permit (**by DATE**), the Permittee shall properly plug and abandon the following monitoring well. • CU-5, intended to be hydrologically downgradient of the pecan orchard and Center Pivot #1. The Permittee shall abandon monitoring wells in accordance with the attachment titled *New Mexico Environment Department Ground Water Quality Bureau Monitoring Well Construction and Abandonment Guidelines*, Revision 1.1, March 2011, and all applicable local, state, and federal regulations, including 19.27.4 NMAC. The Permittee shall submit documentation describing the well abandonment procedures in accordance with the above-mentioned Guidelines. The Permittee shall submit the well abandonment documentation to NMED within 60 days of completion of well plugging activities. [Subsection A of 20.6.2.3107 NMAC, 19.27.4 NMAC]
45.	Submission of Detailed Plan for Complete Closure: Within 9 months of the issuance date of this Discharge Permit (**by DATE**), the Permittee shall submit a detailed closure plan to prevent the exceedance of standards of 20.6.2.3103 NMAC in groundwater after the cessation of operation. The closure plan shall include: a description of closure measures, maintenance and monitoring plans, post-closure maintenance and monitoring plans, and other measures necessary to prevent or abate such contamination. The Permittee shall ensure that the closure plan sufficiently details and addresses the steps necessary to close the impoundment, irrigation infrastructure, and any other wastewater related infrastructure. Further, the detailed closure plan shall address sludge de-watering (as necessary), characterization of wastes to be disposed on-site and off-site, restoration of vegetation, and ongoing maintenance for all impoundments, irrigation infrastructure, any other wastewater related infrastructure, all post-closure activities, and plugging and abandonment of monitoring wells. The Permittee shall ensure that the closure plan addresses post-closure care, including the continued groundwater monitoring required under the Discharge Permit. All closure and post-closure activities are considered "complete closure."

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	The Permittee shall ensure the closure plan has sufficient detail to estimate the cost of complete closure of all wastewater related infrastructure and post-closure monitoring for the purpose of establishing and maintaining financial assurance. The detailed closure plan shall provide sufficient detail to estimate the cost of operation and maintenance of the groundwater monitoring system. Inherent in this detail is an estimate of the time (after the cessation of Facility operation) that the groundwater monitoring system will have to remain in place and in operation, i.e., until WQCC groundwater standards or background concentrations have been met for at least eight consecutive quarters. [Subsection A of 20.6.2.3107]
46.	Submission of Detailed and Complete Closure Cost Estimate for Financial Assurance Purposes: Within 15 months of the issuance date of this Discharge Permit (**by DATE**), the Permittee shall submit a detailed cost estimate ("Estimate") based on the detailed closure plan for complete closure required by Condition 45. The Estimate shall be based on the cost of hiring a third party to conduct complete closure. The Estimate shall include direct costs associated with all third-party implementation of the closure plan, contingency costs in the amount of 15 percent of the direct costs, the cost of an independent project manager and contract administration, and NMED oversight and administration costs, including indirect costs. The Estimate shall forecast the worst-case scenario for complete closure over the five-year period of this permit; if a new permit is not issued after five years, the Estimate for the worst-case scenario shall be updated annually each year after five years and any financial assurance shall be adjusted accordingly. The Permittee shall adjust the Estimate for inflation over the five-year period for complete closure and shall project the amount needed for each of the five years for the worst-case scenario for all activities included in complete closure. [Subsection A of 20.6.2.3107]
47.	Submission of Financial Assurance: Within 21 months of the issuance date of this Discharge Permit (**by DATE**), the Permittee shall submit to NMED for approval a draft of its proposed financial assurance instrument(s) that meet the requirements below. a) The amount of financial assurance shall be sufficient to cover the cost of implementing complete closure as described in the closure plan and cost estimate required by Conditions 45 and 46 of this Discharge Permit. The Permittee shall not propose any form of self-guarantee. The financial assurance instrument(s) shall ensure that funds will be available to implement complete closure if at any time the Permittee is unable, unwilling, or otherwise fails to implement any portion of the closure plan as required by this Discharge Permit.

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	If the financial assurance instrument(s) entails incremental costs of maintaining the instrument(s), i.e., costs for a trustee, the amount of the financial assurance shall be increased to include all such costs. b) Within 30 days after NMED approves the draft financial assurance instrument(s) proposal, the Permittee shall execute the financial assurance instrument and submit it to NMED for final acceptance. c) NMED shall be named as the sole beneficiary in each financial assurance instrument(s). d) Within 30 days of execution, NMED acceptance, and implementation of the financial assurance instrument(s), the Permittee shall establish a trust to receive and disburse funds, which may arise as the result of forfeiture of financial assurance. The trust shall name NMED as the beneficiary. The trust agreement shall be in a form satisfactory to the State Board of Finance and shall be subject to approval by the Governor pursuant to NMSA 1978, § 46-4-1 through 9. The trust shall be maintained until the complete closure has occurred, NMED has released the financial assurance, and NMED has agreed to terminate this permit. Upon forfeiture of financial assurance, the forfeited amount shall be deposited directly into the trust and shall be used for any activities or costs related to complete closure. e) The Permittee may propose alternative financial assurance instrument(s) from time to time subject to NMED's prior written approval and acceptance. The Permittee shall not replace any approved financial assurance instrument(s) without NMED's prior written approval. f) The financial assurance instrument(s) shall remain in effect until complete closure and final termination of this Discharge Permit and shall remain in place at all times, including lapses in discharge permit coverage, late discharge permit renewal or temporary shutdown of facilities covered under DP-1429 unless released by NMED in writing. g) The financial assurance instrument(s) shall include a method for adjustments due to changes in inflation, new technologies, and NMED approved revisions to the closure plan based on continued investigations or other information and shall be adjusted no less frequently than every five years such that, at all times, the amount of financial assurance provided by the Permittee shall be sufficient to perform complete closure at any time during the following five years from the update. Should circumstances warrant more frequent adjustments, NMED may require them in writing and the Permittee shall make the adjustment within 180 days. No more frequently than once every 12 months, the Permittee may request that NMED review remaining activities required for complete closure including alternate closure activities that NMED has approved. The request for review shall

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	describe the activities which have been completed and shall contain an updated cost estimate for remaining complete closure activities. If NMED approves the description of activities which have been completed, the remaining activities of complete closure, and the cost estimate for remaining complete closure activities, NMED will notify the Permittee of appropriate adjustments that the Permittee may make to the amount of financial assurance. The Permittee shall evaluate, and if necessary, revise the financial assurance instrument to comply with applicable WQCC financial assurance regulations, if and when such regulations are promulgated and become issuance. h) Cancellation or Non-renewal: Each financial assurance instrument shall require the financial assurance provider to give at least 120 days written notice to NMED and the Permittee prior to cancellation or non-renewal of the financial assurance instrument. If such notice is received, the Permittee shall propose an alternate financial assurance mechanism to NMED within 30 days of the notice. If NMED approves the alternate financial assurance mechanism, the Permittee shall execute it and submit it to NMED for final acceptance within 60 days of cancellation. If the Permittee fails to obtain alternate financial assurance acceptable to NMED within 60 days, the current financial assurance shall be subject to forfeiture. i) Forfeiture: If NMED determines that implementation of all or any part of complete closure is required and that the Permittee is unable or unwilling or will otherwise fail to conduct all or any part of complete closure as required by this Discharge Permit, then NMED may proceed with forfeiture of all or part of the financial assurance. Prior to beginning a forfeiture proceeding, NMED will provide written notice, by certified mail return receipt requested, to the Permittee and to all financial assurance providers, if applicable, informing them of the determination to forfeit all or a portion of the financial assurance, provided that if NMED's access to the financial assurance is threatened due to time constraints, NMED may begin a forfeiture proceeding, and provide written notice contemporaneously with that proceeding. The written notice will state the reasons for the forfeiture and the amount to be forfeited. The amount shall be based on the total cost of performing complete closure, in accordance with this Discharge Permit and all applicable laws and regulations. NMED will also advise the Permittee and all financial assurance providers, if applicable, of the conditions under which forfeiture may be avoided. Such conditions may include, without limitation, an agreement by the Permittee, by a financial assurance provider, or by an NMED approved third party, to perform complete closure in accordance with this Discharge Permit and all applicable laws and regulations, and a demonstration that such person has the financial ability and technical qualifications to do so. All financial assurance forfeited shall become

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	immediately payable to the trust or as otherwise provided in the NMED approved instrument. Forfeited funds shall be used to perform complete closure. If the forfeited amount is insufficient, the Permittee shall be liable for the remaining costs. If the amount forfeited is more than necessary, the excess amount shall be refunded to the person from whom it was collected. The financial assurance shall be released or modified when NMED determines that all activities of complete closure have been performed according to the closure plan requirements of this Discharge Permit and the Discharge Permit has been terminated. [Subsection A of 20.6.2.3107]

Permanent Facility Closure Conditions

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48.	The Permittee shall perform the following closure measures in the event the Facility, or a component thereof, is proposed to be permanently closed. Within 60 days of ceasing to discharge to the impoundment(s), the Permittee shall plug the impoundment influent lines so that a discharge can no longer occur. Within 60 days of ceasing to discharge to the impoundment, the Permittee shall discharge wastewater from the impoundment and any other wastewater system component to the re-use area. The Permittee shall not discharge accumulated solids (sludge) from the impoundment to the re-use area. Within one year following completion of the sludge removal and disposal, the Permittee shall complete the following closure measures. a) Remove all lines leading to and from the impoundments, or permanently plug and abandon the lines in place. b) Remove or demolish any other wastewater system components and re-grade area with suitable fill to blend with surface topography, promote positive drainage and prevent ponding. c) Characterize, remove and dispose of all solids from the impoundment in accordance with local, state, and federal regulations, and maintain a record of solids transported for off-site disposal, including the volume of solids transported and the disposal location. d) Remove and dispose of the impoundment liners at a solid waste facility. If there is evidence of contaminated soil below the liners, assess the impact, report that

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	assessment to NMED, and mitigate the impacts following NMED approval. e) Fill the impoundment with suitable fill. f) Re-grade the impoundment site and the locations of ancillary equipment, e.g., influent piping, to blend with surface topography, promote positive drainage and prevent ponding. The Permittee shall continue groundwater monitoring until the Permittee meets the requirements of this condition met and groundwater monitoring confirms for a minimum of eight consecutive quarterly groundwater sampling events that groundwater does not exceed the standards of Section 20.6.2.3103 NMAC . This period is referred to as "post-closure." If at any time monitoring results show an exceedance of a groundwater quality standard in Section 20.6.2.3103 NMAC, the Permittee shall implement the Contingency Plan required by this Discharge Permit. Following notification from NMED that the Permittee may cease post-closure monitoring, the Permittee shall plug and abandon the monitoring well(s) in accordance with the attachment Monitoring Well Guidance. When the Permittee has met all closure and post-closure requirements and verified appropriate actions with date stamped photographic evidence or an associated NMED inspection, the Permittee may submit to NMED a written request, including photographic evidence, for termination of the Discharge Permit. [Subsection A of 20.6.2.3107 NMAC, Subsection D of 20.6.2.4103 NMAC, 40 CFR Part 503]

F. GENERAL TERMS AND CONDITIONS

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49.	RECORD KEEPING - The Permittee shall maintain a written record of the following: • Information and data used to complete the application for this Discharge Permit; • Information, data, and documents demonstrating completion of closure activities; • Any releases (commonly known as "spills") not authorized under this Discharge Permit and reports submitted pursuant to 20.6.2.1203 NMAC; • The operation, maintenance, and repair of all facilities/equipment used to treat, store or dispose of wastewater;

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	• Facility record drawings (plans and specifications) showing the actual construction of the Facility and bear the seal and signature of a licensed New Mexico professional engineer; • Copies of logs, inspection reports, and monitoring reports completed and/or submitted to NMED pursuant to this Discharge Permit; • The volume of wastewater or other wastes discharged pursuant to this Discharge Permit; • Groundwater quality and wastewater quality data collected pursuant to this Discharge Permit; • Copies of construction records (well log) for all sampled groundwater monitoring wells pursuant to this Discharge Permit; • The maintenance, repair, replacement or calibration of any monitoring equipment or flow measurement devices required by this Discharge Permit; and • Data and information related to field measurements, sampling, and analysis conducted pursuant to this Discharge Permit, including: ○ the dates, location and times of sampling or field measurements; ○ the name and job title of the individuals who performed each sample collection or field measurement; ○ the sample analysis date of each sample ○ the name and address of the laboratory, and the name of the signatory authority for the laboratory analysis; ○ the analytical technique or method used to analyze each sample or collect each field measurement; ○ the results of each analysis or field measurement, including raw data; ○ the results of any split, spiked, duplicate or repeat sample; and ○ a copy of the laboratory analysis chain-of-custody as well as a description of the quality assurance and quality control procedures used. The Permittee shall maintain the written record at a location accessible to NMED during a Facility inspection for a lifetime of the Discharge Permit. The Permittee shall make the record available to the department upon request. [Subsections A and D of 20.6.2.3107 NMAC]
50.	SUBMITTALS – The Permittee shall submit both a paper copy and an electronic copy of all notification and reporting documents required by this Discharge Permit, e.g., monitoring reports. The paper and electronic documents shall be submitted to the NMED Permit Contact identified on the Permit cover page. [Subsection A of 20.6.2.3107 NMAC]

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51.	INSPECTION and ENTRY – The Permittee shall allow NMED to inspect the Facility and its operations that are subject to this Discharge Permit and the WQCC regulations. NMED may upon presentation of proper credentials, enter at reasonable times upon or through any premises in which a water contaminant source is located or in which any maintained records required by this Discharge Permit, the regulations of the federal government, or the WQCC are located. The Permittee shall allow NMED to have access to and reproduce for their use any copy of the records, and to perform assessments, sampling or monitoring during an inspection for the purpose of evaluating compliance with this Discharge Permit and the WQCC regulations. No person shall construe anything in this Discharge Permit as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other local, state or federal regulations. [Subsection D of 20.6.2.3107 NMAC, NMSA 1978, §§ 74-6-9.B and 74-6-9.E]
52.	DUTY to PROVIDE INFORMATION - The Permittee shall, upon NMED's request, allow for NMED's inspection/duplication of records required by this Discharge Permit and/or furnish to NMED copies of such records. [Subsection D of 20.6.2.3107 NMAC]
53.	MODIFICATIONS and/or AMENDMENTS – In the event the Permittee proposes a change to the Facility or the Facility's discharge that would result in a change in the volume discharged; the location of the discharge; or in the amount or character of water contaminants received, treated or discharged by the Facility, the Permittee shall notify NMED prior to implementing such changes. The Permittee shall obtain NMED's approval (which may require modification of this Discharge Permit) prior to implementing such changes. [Subsection C of 20.6.2.3107 NMAC, Subsections E and G of 20.6.2.3109 NMAC]
54.	PLANS and SPECIFICATIONS – In the event the Permittee proposes to construct a wastewater system or change a process unit of an existing system such that the quantity or quality of the discharge will change substantially from that authorized by this Discharge Permit, the Permittee shall submit construction plans and specifications of the proposed system or process unit to NMED for approval prior to the commencement of construction.

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	In the event the Permittee implements changes to the wastewater system authorized by this Discharge Permit that result in only a minor effect on the character of the discharge, the Permittee shall report such changes (including the submission of record drawings where applicable) to NMED prior to implementation. [Subsections A and C of 20.6.2.1202 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]
55.	CIVIL PENALTIES - Any violation of the requirements and conditions of this Discharge Permit, including any failure to allow NMED staff to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject the Permittee to a civil enforcement action. Pursuant to WQA 74-6-10(A) and (B), such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, modifying or terminating the Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to WQA 74-6-10(C) and 74-6-10.1, civil penalties of up to $15,000 per day of noncompliance may be assessed for each violation of the WQA 74-6-5, the WQCC Regulations, or this Discharge Permit, and civil penalties of up to $10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation, standard, or order adopted pursuant to such other provision. In any action to enforce this Discharge Permit, the Permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. [20.6.2.1220 NMAC, NMSA 1978, §§ 74-6-10 and 74-6-10.1]
56.	CRIMINAL PENALTIES – No person shall: • Make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or maintained under the WQA; • Falsify, tamper with or render inaccurate any monitoring device, method or record maintained under the WQA; or • Fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation. Any person who knowingly violates or knowingly causes or allows another person to violate the requirements of this condition is guilty of a fourth-degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who is convicted of a second or subsequent violation of the requirements of this condition is guilty of a third-degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who knowingly violates the requirements of this condition or knowingly causes another person to violate the requirements of this

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	condition and thereby causes a substantial adverse environmental impact is guilty of a third-degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who knowingly violates the requirements of this condition and knows at the time of the violation that he is creating a substantial danger of death or serious bodily injury to any other person is guilty of a second degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. [20.6.2.1220 NMAC, NMSA 1978, §§ 74-6-10.2.A through 74-6-10.2.F]
57.	COMPLIANCE with OTHER LAWS - Nothing in this Discharge Permit shall be construed in any way as relieving the Permittee of the obligation to comply with any other applicable federal, state, and/or local laws, regulations, zoning requirements, nuisance ordinances, permits or orders. [NMSA 1978, § 74-6-5.L]
58.	RIGHT to APPEAL - The Permittee may file a petition for review before the WQCC on this Discharge Permit. Such petition shall be in writing to the WQCC within thirty days of the receipt of postal notice of this Discharge Permit and shall include a statement of the issues raised and the relief sought. Unless the Permittee files a timely petition for review, the decision of NMED shall be final and not subject to judicial review. [20.6.2.3112 NMAC, NMSA 1978, § 74-6-5.O]
59.	TRANSFER of DISCHARGE PERMIT - Prior to the transfer of any ownership, control, or possession of this Facility or any portion thereof, the Permittee shall: • Notify the proposed transferee in writing of the existence of this Discharge Permit; • Include a copy of this Discharge Permit with the notice; and • Deliver or send by certified mail to NMED a copy of the notification and proof that the proposed transferee has received such notification. The Permittee shall continue to be responsible for any discharge from the Facility, until both ownership and possession of the Facility have been transferred to the transferee. [20.6.2.3111 NMAC]
60.	PERMIT FEES – The Permittee shall be aware that the payment of permit fees is due at the time of Discharge Permit approval. The Permittee may pay the permit fees in a single payment or they may pay the fee in equal installments on a yearly basis over the term of the Discharge Permit. The Permittee shall remit single payments to NMED no later than 30 days after the Discharge Permit issuance date. The Permittee shall remit initial

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	installment payments to NMED no later than 30 days after the Discharge Permit issuance date; with subsequent installment payments remitted to NMED no later than the anniversary of the Discharge Permit issuance date. Permit fees are associated with issuance of this Discharge Permit. No person shall construe anything in this Discharge Permit as relieving the Permittee of the obligation to pay all permit fees assessed by NMED. A Permittee that ceases discharging or does not commence discharging from the Facility during the term of the Discharge Permit shall pay all permit fees assessed by NMED. NMED shall suspend or terminate an approved Discharge Permit if the Permittee fails to remit an installment payment by its due date. [Subsection F of 20.6.2.3114 NMAC, NMSA 1978, § 74-6-5.K]